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ABSTRACT

A study evaluated the world view of children from a third world low-income family setting. A secondary aim of the study was to see if the developmental stages of world concept formation, first described by Piaget in 1929, were present in the children studied. Ten 5- to 12-year-old Brazilian children were interviewed concerning the origins of the moon, the sun, and the stars, using Jean Piaget's clinical method. The interviews were semi-structured and directed toward the origin and explanation of the birth of the heavenly bodies. According to Piaget, the child undergoes three stages of belief: (1) that the stars are made by man or by God; (2) that creation is a union of nature with artificial forces, and (3) that the origin of the sun, moon, and stars is natural. These views have as a starting point a feeling of participation on the part of the child, who typically uses animism and artificialism in explaining the process. Results indicated that across the subject group, children showed an integral artificialism originating from primitive participation, which gradually gave way to a mitigated artificialism, and ended with naturalistic explanations. The results were in accord with the sequence of stages and average ages put forth by Piaget. (ET)

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THE CHILD'S VIEW OF THE WORLD: THE ORIGIN OF MOON, SUN AND STARS

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ABSTRACT:
This study investigated the view that ten 5-12 year-old children from low income families held about the world, focusing on the moon, the sun and the stars. According to Piaget, the child undergoes three stages: during the first stage, the child believes that the stars are made by man or by God; in the second, the child attributes the credits of their creation to a union of nature with artificial forces; in the third stage makes up a natural origin, sometimes considering the matter difficult. These views have as a starting point the feeling of participation (the stars are born and grow just like we do), and the children use animism (the stars are living entities and know what they are doing) and artificialism (the stars are created by man or God) in their explanations. Within obvious limits, we are able to observe in these analogies resembling those of pre-Socratic thinkers. The results were: 3 individuals (aged 5;0, 6;0 and 9;1 years) fit in the first stage; 1 (aged 8;1, 8;6, 8;8 and 9;4 years) fit in the second stage; and 3 children (aged 10;8, 11;2 and 11;4 years) fit in the third stage. In the general we were able to perceive an integral artificialism originated from primitive participation which gradually gave room to a mitigated artificialism, ending with naturalistic explanations, dynamic and objective at first(immanent artificiality), according to the sequence os stages and average ages proposed by Piaget.

INTRODUCTION

In the study about the origin of the moon, sun and stars, Piaget distinguishes three stages: in the first stage the chid compares the rising of the sun and moon to the birth of a living being. The child is unable to describe HOW this happens but admits that it has been artificially conceived. The child

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talks about the moon, sun and stars as if they have grown up as babies. The child credits God or the "Masters" for the creation of these bodies. Initially the parents are considered divities (omniscient and omnipotent), later all men are considered as so. Religious artificiality reinforces spontaneous artificiality which biases the teachings of adults. These complementary tendencies can be perceived at the origin of these biases or deformations: feeling of participation, artificiality and animism.

Around the age 11 or 12 the child concludes that the heavenly bodies have a natural origin. Between the first and third stages there is a transition period in which the moon, sun and stars have a half-natural/ half-artificial origin: the bodies came out of clouds which are the smoke spilled out of houses and airplanes, etc.

From ages 9 to 11 the explanations become entirely natural: the heavenly bodies come from the clouds which are formed by water droplets, etc. They admit that the origin of the moon, sun and stars is a complex issue and they adopt an immanent artificiality which transfers to nature man's builgind capacity.

AIMS:

1. Evaluate the child's perception of the world in low income families, living in a culture of the 3rd world.
2. Check if the 3rd world child were able to replicate the sequences proposed by Piaget

METHOD:

1. Subjects:

Ten children, ages 5 to 12, low income families, were the

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subjects of this study.

2. Material:

Pencils, paper, semi-structured interview guidelines, structured chart for evaluation of parent's educational level and home facilities.

TASKS:

Each child was interviewed concerning the origins of the moon, the sun and the stars according to Jean Piaget's clinical method. The interviews were semi-estructured directed towards the origin and explanation of the birth of the heavenly bodies. The sequence given to the interview was according to the sequence of the children's answers.

RESULTS:

Taking into account the origin of the sun and moon, three subjects were in the first stage: nº 2(age 6;0), nº 6 (age 5;0) and nº 10 (age 8;1), with intense feeling of participation extended into an integral artificiality and complemented by animism. Three subjects were in the second stage: nº 1 (age 8;8), nº 5 (age 8;6) and nº 9 (age 9;0), who admitted a half natural/half artificial origin for the sun and moon. Four subjects were in the third stage: nº 3 (age 10;7), nº 4 (age 9;4), nº 7 (age 11;4) and nº 8 (age 11;3), who believed that the sun and moon originated from natural substances with evidence of immanent animism, that the heavenly bodies did not follow people around and that they did not have mouths, etc. The children, however believe that these beings are aware that they are alive, and that in spite of their natural origin God made them all.

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As for the origin of atars, whose third stage comes first in relation to the sun and the moon, three of the subjects were in the first stage: nº 2 (age 6;0), nº 6 (age 5;0) and nº 10 (age 8;1). One of the subjects was in the second stage: nº 5 (age 8;0). Six of the subjects were in the third stage: nº 1 (age 8;8), nº 3 (age 10;7), nº 4 (age 9;4), nº 7 (age 11;4) , nº 8 (age 11;3) and nº 9 (age 9;0).

SUBJECTS ACCORDING TO DIFFERENT STAGES

		LEVELS	
Subject	Age	Sun & Moon	Star
Nº 1	8;8	2nd	3rd
Nº 2	6;0	1st	1st
Nº 3	10;7	3rd	3rd
Nº 4	9;4	3rd	3rd
Nº 5	8;6	2nd	2nd
Nº 6	5;0	1st	1st
Nº 7	11;4	3rd	3rd
Nº 8	11;3	3rd	3rd
Nº 9	9;0	2nd	3rd
Nº 10	8;1	1st	1st

Sources:

-School: "Flora Guimarães Rosa" Elementary School. Campo Grande, State of Mato Grosso do Sul, Brazil.

- School: " Mucio Teixeira Junior" Elementary School, Campo Grande, State of Mato Grosso do Sul, Brazil

- School: "Sebastião Santana de Oliveira" Elementary School, Campo Grande, State of Mato Grosso do Sul, Brazil.

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Subject nº 1, age 8;8, admits that the sun exists because God created it. The sun and the moon are made of light, but they were created by God. The clouds are made from smoke of airplanes. The stars are droplets of the moon (second stage as to the origin of the sun and the moon, but in the third stage as to the origin of the stars).

Subject nº 6, age 5;0, admits that the sun was born in the sky, from its mother's womb. An Angel created the sun and all life and made the moon grow up. The moon is alive to light up the night. The sun is alive to make light and knows when it is day, it has its own home and sees the numbers of the days (first stage: feeling of participation, animism and integral artificiality).

Subject nº 8, age 11;2, admits that the sun was made from clouds. The sun recognizes his own name and is alive. Adam and Eve made life begin. The sun does not eat, but children grow because they eat. The moon was created together with the stars and is made of smoke and clouds. The moon created itself, is alive and can tell when it is night. The clouds are made of amoke which drink the water and make it rain. The clouds were created by themselves and are alive (third stage : immanent animism and natural origin of heaven bodies).

CONCLUSIONS:

The children's explanations as to origin of the sun, the moon and the stars evinced three stages: integral artificiality, mitigated artificiality and naturalism. The results confirmed

the sequence of stages observed by Piaget. Nevertheless, intense religious artificiality appeared in all phases. The children's cosmogony resemble the explanation of the Universe by Pre-Socratic philosophers.

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